

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Tru-Val Tubing Company

Michigan Manufacturing Technology Center

Using Lean Techniques, Tru-Val Tubing Company Soars from 'Last' to Leadership

Client Profile:

Tru-Val Tubing Company, a second-generation, family owned business located in Waterford, Michigan, has been doing business since 1967. Currently operating with 110 employees, Tru-Val manufactures fuel fillers, oil fill tubes, and brake lines for the automotive industry.

Situation:

In 1999, Tru-Val made a commitment to revitalize the company. CFO Dan Busch, having read the book, "Lean Thinking," began looking for what was driving Tru-Val's losses as a way to determine which internal improvements were the highest priorities. He was familiar with the Michigan Manufacturing Technology Center (MMTC), a NIST MEP network affiliate, through its marketing and from visits by one of the Michigan Economic Development Corporation's (MEDC) account representative.

Solution:

MMTC's Director of Lean Business Solutions, Robert Lyscas, worked with Dan to secure Economic Development Training Grant (EDJT) funds to assist with training. With its initial EDJT grant, the company sent management representatives to Lean Leadership Training. This allowed management to develop a clear and consistent methodology in its lean approach, and to build a strategic business improvement plan. Additional EDJT monies led to training internal lean champions, Six Sigma black belt training, ISO 14001 training and several kaizen events. "From the beginning," Dan said, "MMTC was intent on helping us to be independent, creating the internal resources necessary to carry on our continuous improvement efforts." Tru-Val now has 10 trained lean manufacturing champions 2 Six Sigma Black Belts and 2 Six Sigma Green Belts.

Kaizens also resulted in 60 percent less required floor space after reorganizing work cells. This allowed Tru-Val to double production within its current facility and maintain the current workforce. Inventory turns have increased from 8 to 13, fifty jobs have been retained, and 15 new jobs created. The addition of visual cues and 5S together allow quick and easy recognition of where pieces are in the process, and whether things are on schedule.

Today, Tru-Val is a true industry leader, recently being recognized as a 'Best Practice' performer in 5S and Visual Workplace by Saturn Corporation. The most recent lean initiatives have resulted in inventory reductions of \$270,000, or 22 percent, bringing total inventory reductions to more than \$500,000. Even more impressive, over the last five years of improvements, defective parts-per-million (PPM) have dropped from 3500 to 0, with 0 PPM maintained over the last 9 months. This resulted in GM reclassifying Tru-Val from the bottom 5 percent to the top 5 percent of its supply base. To get a sense of what that means, think about a customer getting a delivery of 10,000 Tru-Val parts. If the customer sampled 200 of them, there was a 7-in-10 chance that it would find at least one bad part and reject the whole lot of 10,000. Tru-Val would then either have to look at all 10,000 to find the 35 bad parts, or throw away all 10,000. Today, neither Tru-Val nor its customers need to 'sort' parts, because

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there are no bad ones.

Tru-Val has done an about-face in its industry, moving from the back to the front of the pack, while continuing to strive to get better through continuous improvement. The company's recent certification to the ISO 14001 standard shows that Tru-Val is 'doing the right things right. Dan Busch and the owners are pleased with the progress. "Our improvements have allowed us to move from putting out fires to actually addressing business needs," Dan stated. "The training has paid for itself with our improvements. Tru-Val employees have always had pride in their work, and now volunteer their time to find new improvement efforts. It's a matter of ownership in the process."

Results:

- * Retained \$5M in sales.
- * Reduced employee turnover from 121.8 percent to 44.3 percent.
- * Trained 10 Lean Champions and 2 Six Sigma Green Belts.
- * Reduced work-in-process in focus areas by 70 percent.
- * Reduced work-in-process plant-wide by 30 percent.
- * Increased efficiency for one product line by 30 percent.
- * Increased sales by 25 percent, one-fifth of that from new customers.
- * Reduced PPM from 3500 to 0, and maintained at 0 for 8 months.
- * Improved inventory turns from 8 to 13.
- * Retained 50 jobs.
- * Created 15 new jobs.
- * Certified to the ISO 14001 standard.

Testimonial:

"Our improvements have allowed us to move from putting out fires to actually addressing business needs. The training has paid for itself with our improvements."

Dan Busch, CFO